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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,012	02/10/2006	Peter Neugebauer	032301440	7386

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EXAMINER	
CORNO JR, JAMES A	
ART UNIT	PAPER NUMBER
1793	
MAIL DATE	DELIVERY MODE
06/09/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,012	NEUGEBAUER ET AL.	
	Examiner	Art Unit	
	JAMES CORNO	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-8 and 10-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 6-8, and 10-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed March 01, 2010 have been fully considered but they are not persuasive.

Applicant contends that the material used by Deller is not the same as Aeroperl. However, the reference is clearly describing the production of Aeroperl. The process described in the examples uses pyrogenic silica (Aerosil, which is produced by the flame hydrolysis of $SiCl_4$) dispersed in water, spray dried to form granules, heat treated, and silanized. The final product exactly fits all of the properties that applicant attributes to Aeroperl, and the patent assignee is Degussa, the maker of Aeroperl (and also the assignee for the instant application).

The physical differences between Aeroperl and Aerosil are due to the fact that Aeroperl particles are an agglomeration of a huge number of Aerosil particles. The spray drying process causes the Aerosil particles to clump together, and the clumping is made permanent by the heat treating process. The grain size comparison in applicant's argument is inaccurate, since the particles actually differ by 3 orders of magnitude (Aeroperl particles are tens of *microns* in diameter, whereas Aerosil particles are tens of *nanometers* in diameter).

Regarding the use of the word "granular," there is no burden on the examiner to establish any similarity. The word has accepted meanings in the English language, and

since no preferred meaning was expressed in the instant specification, the claims will be given their broadest reasonable interpretation. Any definition of the word is applicable.

However, for clarity, the word granule is interpreted as "a grain or particle," granular is interpreted as "comprising granules," and granulate is interpreted as "to make granular." These definitions are applicable to all of the references as well as the instant specification.

The new rejections below were necessitated by the amendment to claim 1 incorporating the limitations of claim 37. The rejection is therefore made final.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4, 6-8, 10-14, 20, 26-27, and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roman (US Patent No. 6,171,602) in view of Deller et al. (US Patent No. 5,776,240), Hasenzahl et al. (WO 03/037379 A1), and Degussa press release titled "Dry Binder - A New Concept for Pressed Powders," (June 12, 2003; hereinafter referred to as "the press release"). Roman teaches powder comprising silanized porous silica granules used as carriers of various foodstuff additives. Roman does not teach the use of pyrogenically prepared silica. Deller teaches pyrogenically prepared silica granules made by spray drying Aerosil (which is made by flame

hydrolysis) and heat treating the result, with exactly the claimed dimensions and characteristics (see abstract) which can be used as adsorption media (col. 1, lines 28-29). In addition, the press release teaches that the granules of Deller (Aeroperl) are known to be useful as adsorbates, and Hasenzahl teaches that such pyrogenically prepared silica is superior to precipitated silica, which typically has an unacceptably high water content (p. 4, lines 2-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Deller's granules into Roman's powder because they are known to be useful as an adsorbate and to be superior to precipitated alternatives.

Regarding claims 2, 11, and 26, Roman teaches the use of riboflavin, which is both a food dye and a feedstuff additive.

Regarding claims 4, 8, and 10, Deller teaches adsorbate particles silanized with any of the claimed silane compounds.

Regarding claims 6-7 and 32, Deller teaches exactly the claimed dimensions and characteristics.

Regarding claims 12-13 and 20, Roman teaches the use of ascorbic acid, which is an antioxidant, a food preservative, and an acid.

Regarding claim 14, Roman teaches the use of glyceryl ester derivatives as emulsifiers.

Regarding claim 25, Roman teaches the use of cinnamates, which are aroma agents.

Regarding claim 27, Roman teaches the use of cysteine, which is a chemical intermediate for the production of various food additives.

Regarding claim 33, Roman teaches the use of turmeric oleoresin.

Regarding claim 34, Roman teaches the use of beta-carotene, which is a free radical interceptor.

Regarding claims 35-36, Roman teaches that the silica granules absorb liquids in approximately a 1:1 ratio (col. 4, lines 62-67).

Claims 1, 3, 28, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minemoto (JP 02049707 A) in view of Deller, Hasenzahl, and the press release. Minemoto teaches a powder of boric acid adsorbed on porous silica granules. Boric acid acts as both an insecticide and a fungicide. Minemoto does not teach the use of pyrogenically prepared silica. Deller teaches pyrogenically prepared silica granules made by spray drying Aerosil (which is made by flame hydrolysis) and heat treating the result, with exactly the claimed dimensions and characteristics (see abstract) which can be used as adsorption media (col. 1, lines 28-29). In addition, the press release teaches that the granules of Deller (Aeroperl) are known to be useful as adsorbates, and Hasenzahl teaches that such pyrogenically prepared silica is superior to precipitated silica, which typically has an unacceptably high water content (p. 4, lines 2-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Deller's granules into Minemoto's powder because they are known to be useful as an adsorbate and to be superior to precipitated alternatives. In

addition, Minemoto's requirements of 10-5000 Å diameter pores, 0.05-3 cm^3/g pore capacity, and 1-300 μm grain diameter are all satisfied by Deller's granules.

Claims 1, 19, 21, 29, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (US Patent No. 5,654,258) in view of Deller, Hasenzahl, and the press release. Park teaches a composition comprising trifluralin (a herbicide) in porous silica carrier particles. Park does not teach the use of pyrogenically prepared silica. Deller teaches pyrogenically prepared silica granules made by spray drying Aerosil (which is made by flame hydrolysis) and heat treating the result, with exactly the claimed dimensions and characteristics (see abstract)which can be used as adsorption media (col. 1, lines 28-29). In addition, the press release teaches that the granules of Deller (Aeroperl) are known to be useful as adsorbates, and Hasenzahl teaches that such pyrogenically prepared silica is superior to precipitated silica, which typically has an unacceptably high water content (p. 4, lines 2-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Deller's granules into Park's herbicide composition because they are known to be useful as an adsorbate and to be superior to precipitated alternatives.

Regarding claims 19, 21, and 34, Park teaches that the particles may be coated in alkyl napthalene sulfonate sodium salt (col. 4, line 49), which is an alkali salt used as a wetting agent.

Claims 1, 15-18, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al. (US Patent No. 6,004,584) in view of Deller and the press release. Peterson teaches a body powder comprising powder carriers such as soy starch, modified corn starch, or microcrystalline cellulose (col. 3, lines 45-50); and binders such as isopropyl or magnesium myristate (col. 6, line 55). Peterson does not teach the use of pyrogenically prepared silica. The press release teaches that granulated fumed silica (e.g. Aeroperl, the material taught by Deller) is an ideal replacement for isopropyl or magnesium myristate as a dry binder in cosmetic applications, as it adsorbs the oily components and releases them upon compression. Deller teaches pyrogenically prepared silica granules made by spray drying Aerosil (which is made by flame hydrolysis) and heat treating the result, with exactly the claimed dimensions and characteristics (see abstract) which can be used as adsorption media (col. 1, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to use Deller's silica granules (Aeroperl) as a dry binder in Peterson's body powder because "Dry Binder" teaches that silica granule adsorbates are superior dry binders, and Deller specifically teaches that it is one intended use of the granules.

Regarding claims 15-18, microcrystalline cellulose can be used as a gelling agent, thickener, binder, or stabilizer.

Regarding claim 22, the modified corn flour is an antilumping agent.

Regarding claim 23, soy starch contains glutamic acid, which is a flavor intensifier.

Claims 1 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Technical Bulletin Pigments No. 31 (Degussa AG, November 1995) in view of Deller Hasenzahl, and the press release. The Technical Bulletin teaches that silanized silica is useful as an adsorbate for molasses in order to make a free-flowing powder. The Technical Bulletin does not teach the use of pyrogenically prepared silica granules. Deller teaches pyrogenically prepared silica granules made by spray drying Aerosil (which is made by flame hydrolysis) and heat treating the result, with exactly the claimed dimensions and characteristics (see abstract) which can be used as adsorption media (col. 1, lines 28-29). In addition, the press release teaches that the granules of Deller (Aeroperl) are known to be useful as adsorbates, and Hasenzahl teaches that such pyrogenically prepared silica is superior to both precipitated silica, which typically has an unacceptably high water content (p. 4, lines 2-8), and to loose pyrogenic silica adsorbates, which typically have insufficient flowability (p. 3, lines 22-33). It would have been obvious to one of ordinary skill in the art at the time of the invention to use Deller's granules as an adsorbate for mollases as taught in the Technical Bulletin because they are known to be useful as an adsorbate and to be superior to loose or precipitated alternatives.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES CORNO whose telephone number is (571)270-5829. The examiner can normally be reached on Monday-Thursday 9:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES CORNO/
Examiner, Art Unit 1793

June 4, 2010

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793